

# **WORKING TO PREVENT AND CONTROL INJURY IN THE UNITED STATES**

**Fact Book for the Year 2000**

**Centers for Disease Control and Prevention  
National Center for Injury Prevention and Control**

**Jeffrey P. Koplan, MD, MPH**  
Director  
Centers for Disease Control and Prevention

**Stephen B. Thacker, MD, MSc**  
Acting Director  
National Center for Injury Prevention and Control



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# INTRODUCTION

Throughout history, injury has been a major cause of premature death. In modern America, injury takes a high toll on the lives of our citizens and is the leading killer of our children, teenagers, and young adults. Nearly 19,000 children and teenagers under age 20 died from injuries in 1997 in the U.S. Of these, 8,130 died of injuries related to motor vehicles; 3,749 were murdered; and 2,109 were suicides. Injuries such as falls and fires caused the other 4,802 deaths. In 1997, almost 150,000 Americans died because of injuries, and every year hundreds of thousands of Americans are nonfatally injured. Many suffer permanent disabilities.

The mission of the National Center for Injury Prevention and Control (NCIPC) is to prevent injuries and to control and minimize the extent of injury or disability among those who are injured. Using a science-based approach, NCIPC provides national leadership in injury prevention and control and supports research and training in the field.

## 10 Leading Causes of Death by Age Group: 1997

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 6,178	Unintentional Injuries 2,005	Unintentional Injuries 1,534	Unintentional Injuries 1,837	Unintentional Injuries 13,367	Unintentional Injuries 12,598	Malignant Neoplasms 17,099	Malignant Neoplasms 45,429	Malignant Neoplasms 86,314	Heart Disease 606,913	Heart Disease 726,974
2	Short Gestation 3,925	Congenital Anomalies 589	Malignant Neoplasms 547	Malignant Neoplasms 483	Homicide 6,146	Suicide 5,672	Unintentional Injuries 14,531	Heart Disease 35,277	Heart Disease 65,958	Malignant Neoplasms 382,913	Malignant Neoplasms 539,577
3	SIDS 2,991	Malignant Neoplasms 438	Congenital Anomalies 223	Suicide 303	Suicide 4,186	Homicide 5,075	Heart Disease 13,227	Unintentional Injuries 10,416	Bronchitis Emphysema Asthma 10,109	Cerebro-vascular 140,366	Cerebro-vascular 159,791
4	Respiratory Distress Synd. 1,301	Homicide 375	Homicide 174	Homicide 283	Malignant Neoplasms 1,645	Malignant Neoplasms 4,607	HIV 7,073	Cerebro-vascular 5,695	Cerebro-vascular 9,676	Bronchitis Emphysema Asthma 94,411	Bronchitis Emphysema Asthma 109,029
5	Maternal Complications 1,244	Heart Disease 212	Heart Disease 128	Congenital Anomalies 224	Heart Disease 1,098	HIV 3,993	Suicide 6,730	Liver Disease 5,622	Diabetes 8,370	Pneumonia & Influenza 77,561	Unintentional Injuries 95,644
6	Placenta Cord Membranes 960	Pneumonia & Influenza 180	Pneumonia & Influenza 76	Heart Disease 185	Congenital Anomalies 420	Heart Disease 3,286	Homicide 3,677	Suicide 4,948	Unintentional Injuries 7,105	Diabetes 47,289	Pneumonia & Influenza 86,449
7	Perinatal Infections 777	Perinatal Period 75	HIV 62	Bronchitis Emphysema Asthma 79	HIV 276	Cerebro-vascular 678	Liver Disease 3,508	Diabetes 4,335	Liver Disease 5,253	Unintentional Injuries 31,386	Diabetes 62,636
8	Unintentional Injuries 765	Septicemia 73	Bronchitis Emphysema Asthma 50	Pneumonia 65	Pneumonia & Influenza 220	Diabetes 620	Cerebro-vascular 2,787	HIV 3,513	Pneumonia & Influenza 3,759	Alzheimer's Disease 22,154	Suicide 30,535
9	Intrauterine Hypoxia 452	Benign Neoplasms 65	Anemias 38	Cerebro-vascular 51	Bronchitis Emphysema Asthma 201	Pneumonia & Influenza 534	Diabetes 1,858	Bronchitis Emphysema Asthma 2,838	Suicide 2,946	Nephritis 21,787	Nephritis 25,331
10	Pneumonia & Influenza 421	Cerebro-vascular 56	Benign Neoplasms 35	Benign Neoplasms 41	Cerebro-vascular 188	Liver Disease 516	Pneumonia & Influenza 1,394	Pneumonia & Influenza 2,233	Septicemia 1,852	Septicemia 18,079	Liver Disease 25,175

## The Cost of Injury, the Value of Prevention

Although the greatest cost of injury is in human suffering and loss, the financial costs are also staggering: more than \$224 billion a year for medical care and rehabilitation and in lost income.

Preventing injuries always costs less than treating them:

- \$1 spent on smoke alarms saves \$69
- \$1 spent on bicycle helmets saves \$29
- \$1 spent on child safety seats saves \$32
- \$1 spent on center and edge lines on roads saves \$3 in medical costs alone
- \$1 spent on counseling by pediatricians to prevent injuries saves \$10
- \$1 spent on poison-control-center services saves \$7 in medical expenses

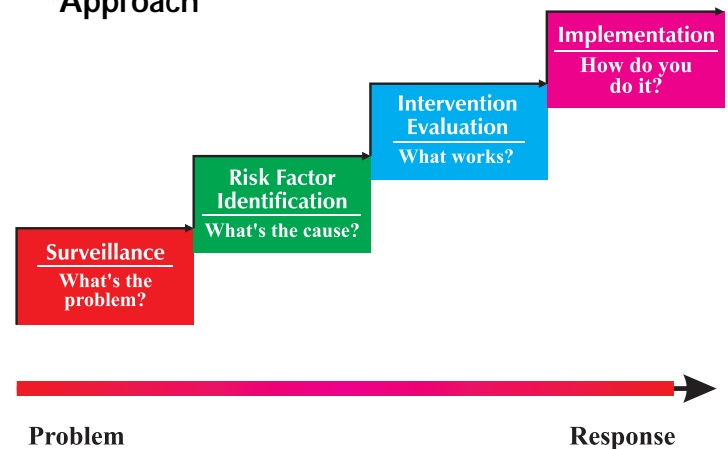
A CDC-funded evaluation study of a regional trauma-care system in Portland, Oregon, found a 35% decrease in the risk of dying for the severely injured who were treated in the system. Similarly, a smoke-detector distribution program in Oklahoma reduced burn-related injuries 83%. Smoke-detector programs could reduce the costs of injuries related to house fires; these costs range from \$32,452 to \$117,506 per hospitalization.

## The Public Health Approach

NCIPC follows a model called the Public Health Approach. This model has been used successfully to lower the burden of other public health problems, such as childhood illnesses and smallpox.

*Surveillance* tells us how big the injury problem is, where it is, and who is affected. This information allows decision makers to allocate programs and resources where they are most needed. Surveillance data also tell us how well we are doing over time, where to shift resources, or to set a different direction.

### Public Health Approach



*Research* on risk factors provides information on who is at risk for particular injuries and why. This information is crucial to developing effective, targeted interventions. Such research can also provide information on factors that help protect people from injury.

*Evaluation* research provides us with answers to the ultimate questions: Does the intervention work? Does it work as intended, and will it work when implemented in communities?

*Implementation* tells how programs were conducted so that others may learn from the experience and replicate successful programs.

## How the Center Carries Out Its Mission

NCIPC conducts surveillance, research, and program evaluation in a number of ways. The main focus of the center's work is increasing the science base in the field of injury control and prevention.

*Injury Control Research Centers (ICRCs):* NCIPC funds ICRCs across the country to conduct research in all three phases of injury control: prevention of injuries, acute care of injured persons, and rehabilitation to reduce disability. ICRCs are usually established at colleges and universities. The research is interdisciplinary and incorporates medicine,

engineering, epidemiology, law, criminal justice, behavioral and social sciences, biostatistics, public health, and biomechanics. ICRCs also serve as training centers for public health professionals and as information centers for the public.

*Injury Prevention and Control Research Projects (RO1s):* NCIPC funds individual research projects to study specific facets of injury prevention and control. Each RO1 meets one of NCIPC's three research needs: to explain the causes and mechanisms of injury; to identify interventions to prevent injury or minimize disability from injury; and to evaluate the effect of known interventions on injury morbidity, disability, mortality, or cost.

*Cooperative agreements with community-based and research organizations:* NCIPC funds 38 community-based and research organizations to conduct demonstration programs and evaluations of interventions to prevent different types of injuries. These projects focus on acute care and on preventing youth violence, intimate-partner violence, suicide, playground injuries, poisoning, injuries among older Americans, and pressure sores. The projects usually include participation by community groups, the state or local health department, and a university or research organization, which provides research and evaluation expertise.

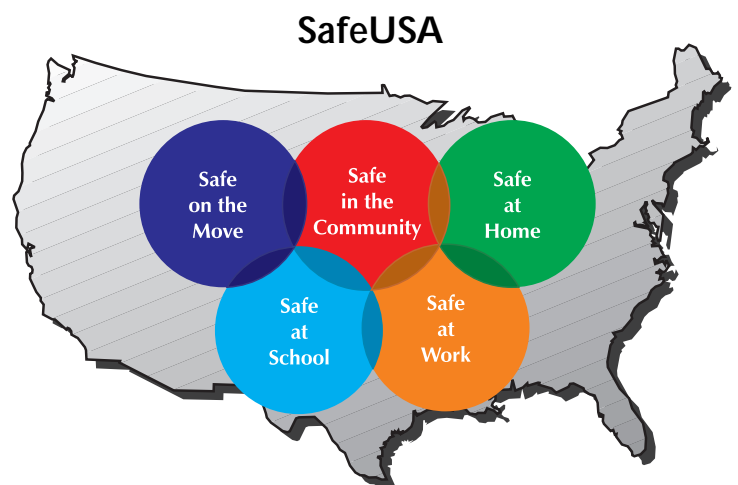
*State cooperative agreements:* NCIPC funds 58 surveillance, demonstration, evaluation, and developmental projects in 33 state health departments. Surveillance for traumatic brain injury is conducted in 15 states, surveillance of violence against women in 5 states, and emergency-department injury surveillance in 3 states; core support for injury programs is provided in 7 states. In addition, 24 states are evaluating programs on use of bicycle helmets and smoke alarms, and 2 states are exploring implementation and evaluation of trauma care systems.

*Intramural activities:* NCIPC conducts intramural research, concentrating on epidemiological studies. The center also compiles information from a number of sources and communicates this information to the injury field, policymakers, and the public.

## SafeUSA

### A National Program of Injury Control

SafeUSA is the framework for a national program that works to make Americans safe from injury. This goal will be accomplished with a strong program of research that provides the foundation for the delivery of prevention and control programs in states and communities. Also included will be a national campaign and information system to tell Americans which injury-prevention measures work and how to access prevention resources.



The vision of SafeUSA—that Americans can and will make safety a reality rather than accept injuries as a fact of life—means that people will be

- *Safe at home* from injuries resulting from fires, falls, poisonings, drownings, and violence
- *Safe on the move* from injuries related to motor vehicles, bicycles, motorcycles, and pedestrian activities
- *Safe at school* from injuries related to playgrounds, sports, and violence
- *Safe at work* from injuries related to hazards, equipment, working conditions, and violence
- *Safe in the community* from violence and unintentional injuries such as falls, fire-related injuries, and drownings in public places. Also includes protection after an injury occurs by emergency medical systems, emergency response systems, poison control centers, and trauma care systems

To make this vision a reality, NCIPC is working with 22 partners to

*Change the way people think about injury control by focusing on safety.* This is the result of adopting injury prevention. The SafeUSA partnership provides information on injury prevention to both individuals and community groups. The partnership delivers information mainly through the SafeUSA web site ([www.cdc.gov/safeusa](http://www.cdc.gov/safeusa)) and through the SafeUSA hotline (888-252-7751). These two informational services were launched through promotional campaigns provided by McDonald's in their restaurants across the country.

*Conduct research to find answers to injury problems.* Research must be conducted to support the effective implementation of programs and to develop new interventions and continuously improve existing ones.

*Deliver what we already know.* We must share our knowledge about promising interventions, such as smoke detectors, poison-control centers, bike helmets, youth-violence prevention strategies, and trauma-care systems. Although many organizations are conducting injury-prevention activities, the large number of deaths and nonfatal injuries occurring in our country each year shows a clear need for more such programs. SafeUSA will increase the number of prevention and control programs across the country by working through current and new channels and partnerships:

- State health departments—They have provided the national infrastructure to control many public health problems over the years and can be a tremendous force for injury prevention. State health departments could set up surveillance systems to identify needs and priorities and could bring appropriate private partners together to address public health issues.
- Public agencies, private nonprofits, community-based organizations, and academic centers that are developing links in the community—SafeUSA works with public agencies and private organizations to deliver injury programs. These organizations include the National SAFE KIDS Campaign, the National Safety Council,

Boys and Girls Clubs, the American Trauma Society, domestic violence coalitions, and many others. Public agencies include highway and traffic safety, fire fighting, and public safety personnel.

- Corporations and businesses—SafeUSA will work to bring more partners into the injury prevention field, particularly in the corporate arena.

## SafeUSA Partnership

### Federal Organizations:

Department of Health and Human Services  
Centers for Disease Control and Prevention  
Health Resources and Services Administration  
Indian Health Service  
Consumer Product Safety Commission  
Department of Defense  
Department of Education  
Department of Housing and Urban Development  
Department of Justice  
Department of Transportation

### Private Nonprofit Organizations and Professional Organizations:

American Academy of Pediatrics  
American Psychological Association  
American Trauma Society  
Boys and Girls Clubs of America  
Brain Injury Association  
Children's Safety Network  
National Fire Protection Association  
National Resource Center on Domestic Violence  
National SAFE KIDS Campaign  
National Safety Council  
Safe America Foundation

### Corporate/Business Organizations:

Blue Cross/Blue Shield of Illinois (in conjunction with the Illinois Department of Public Health and the Illinois Violence Prevention Authority)

### Special Partners:

State and Territorial Injury Prevention Directors' Association  
Injury Control Research Centers  
(funded by NCIPC)